CLAIMS LISTING

The present state of the claims pending herein, including the amendment to claim 8, the cancellation of claims 4 and 7, and the addition of newly presented claims 16-21, is as set forth below. The listing of the pending claims supercedes any previous listings. No new matter has been added.

1. (Currently Amended) A method of determining an eigenspace for representing a plurality of training speakers, the method comprising the following steps:

—developing speaker-dependent (SD) sets of models for the individual training speakers using ~~while~~ training speech data of the individual training speakers ~~are used~~, wherein the models (SD) of a set of models are each ~~being~~ described ~~each time~~ by a plurality of model parameters;

—displaying a combined model for each speaker in a high-dimensional vector space (model space) by concatenation of thea plurality of ~~the~~ model parameters of the models of the sets of models of the individual training speakers to a respective coherent supervector; and

—performing a transformation of the combined model while reducing the dimension of the model space to derive eigenspace basis vectors (E_e) using reduction criterions based on based on mutual variability~~,~~ to realize a context-dependent phoneme which maintains all essential information after said transformation~~characterized by the following steps:~~.

2. (Currently Amended) A method as set forth~~claimed~~ in Claim 1, wherein ~~characterized in that~~ the models (SI, SD) are Hidden Markow models in which each state of a single model (SI~~,~~ SD) is described

by a respective mixture of a plurality of probability densities, and wherein the probability densities are each described ~~each time~~ by a plurality of acoustic attributes in an acoustic attribute space.

3. (Currently Amended) A method as set forth ~~claimed~~ in Claim 1, wherein~~characterized in that~~ the transformation for determining the eigenspace basis vectors (E_e) includes a step of utilizing ~~makes use of~~ a reduction criterion based on the variability of the vectors to be transformed.

4. (Currently Amended) A method as set forth~~claimed~~ in claim 1, further including a step of determining ~~characterized in that for the eigenspace basis vectors (E_e),~~ associated ordering attributes for the eigenspace basis vectors (E_e) ~~are determined~~.

5. (Currently Amended) A method as set forth ~~claimed~~ in Claim 4, wherein~~characterized in that~~ the eigenspace basis vectors (E_e) are the eigenvectors of a correlation matrix determined by means of the supervectors, and the ordering attributes of the eigenvalues correspond~~belonging~~ to the eigenvectors.

6. (Currently Amended) A method as set forth~~claimed~~ in Claim 4, wherein the step of ~~characterized in that for~~ reducing the dimension of the eigenspace includes rejecting a certain number of eigenspace basis vectors (E_e) in accordance with~~are rejected while taking~~ the ordering attributes ~~into account~~.

7. (Currently Amended) A method as set forth ~~claimed~~ in claim 1, wherein ~~characterized in that for~~ the high-dimensional model space is realized by first reducing ~~a reduction is made to~~ a speaker subspace via a change of basis, in which speaker subspace all the

supervectors of all the training speakers are represented and in which ~~this speaker subspace~~ the transformation is performed for determining the eigenspace basis vectors (E_e).

8. (Currently Amended) A method as set forth ~~claimed~~ in Claim 1, wherein ~~characterized in that~~ the transformation is performed in accordance with ~~for determining the eigenspace basis vectors (E_e) on the~~ difference vectors generated in accordance with a difference between ~~of~~ the supervectors of the individual training speakers and ~~to~~ an average supervector.

9. (Currently Amended) A speech recognition method in which a basic set of models is adapted to a current speaker on the basis of recognition of previously ~~already~~ observed speech data of the current speaker utilizing~~to be recognized of this speaker while~~ an eigenspace ~~is used~~, which eigenspace ~~was~~ determined in accordance with ~~based on~~ training speech data derived from ~~of~~ a plurality of training speakers, respectively, said speech recognition method in accordance with a method of determining an eigenspace for representing a plurality of training speakers, as set forth in claim 1~~as claimed in one of the preceding Claims~~.

10. (Currently Amended) A computer program with program code means for causing a general purpose computer to execute~~executing~~ all the steps of the method set forth in claim 1~~a method as claimed in one of the preceding Claims~~ when the program is executed on the~~a~~ computer.

11. (Currently Amended) A computer program with program code means as set forth in ~~claimed in~~ Claim 10, which computer program is~~are~~ stored on a computer-readable data carrier.